

REMARKS

In the Office Action mailed October 6, 2003, the Examiner rejected claims 1-30, and objected to the disclosure and the drawings. By the present Response, claims 26 and 27, the disclosure, and the drawings are amended. Upon entry of the amendments, claims 1-30 will remain pending in the present patent application. In view of Applicants' arguments below, reconsideration and allowance of all pending claims are respectfully requested.

As for the objections, the Examiner first stated that the present application does not contain an abstract of the disclosure. While Applicants believe that an abstract of the disclosure was filed originally with the present application, the specification is now amended to include the abstract of the disclosure to address the Examiner's objection. Furthermore, the Examiner objected to the disclosure because of a misspelling on page 8, and to the drawings because of a mislabeling in Fig. 6c. Accordingly, the specification is further amended. The paragraph in which the misspelling occurred has been replaced and Fig. 6 has been corrected.

Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1-6, 10-23, and 26-30 under 35 U.S.C. § 102 (b) as being anticipated by Okudaira et al. (US 6,400,375). Claims 26 and 27 have been amended. Applicants respectfully traverse this rejection. A *prima facie* case of anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985). As discussed in more detail below, the cited reference fails to disclose all of the elements of independent claims 1, 10, 19, and 26. Accordingly, the Examiner has failed to establish a *prima facie* case of anticipation.

The present application provides a technique for sizing and scaling a representation displayed on a computer monitor of a physical system or diagram having logical groupings of elements. As described in the application, if a user changes the size of the display/viewing area, such as by dragging a virtual tool via a mouse, the technique scales the element sizes and selects what logical groupings of elements are displayed in the viewable region. A purpose is to coherently display logical groupings and to avoid, for example, displaying only portions of logical groupings of elements.

It is clear that the selection of logical groupings for display determines the number of elements displayed. The logical groupings of elements are displayed as discrete units and the number of logical groupings (and thus the number of elements) displayed in the viewable region (i.e., display/viewing area) may change as the size of the viewable region changes. For example, as described by the illustrative embodiment of Figs. 6a-6c, as the vertical dimension H of the display/viewing area changes (reduced in this example), the size of the elements are scaled to maintain the aspect ratio of the height h' and width w' of the elements (Fig 6b). Then, as the horizontal dimension W of the display area changes, the selection of logical groupings to be displayed also changes (Fig. 6c).

Conversely, the Okudaira et al. reference cited by the Examiner is directed toward the sizing of a *fixed* number (N) of thumbnail images displayed on a computer monitor, and does not address representations of physical systems, components, diagrams, and the like. Furthermore, unlike the present technique, the Okudaira et al. approach does *not* define logical groupings of the thumbnail images (elements), but instead *detects* a fixed number (N) of images stored in a computer folder selected by the user. Column 7, lines 40-45, column 8, lines 1-3, 13-14.

In other words, the reference does not teach logical groupings of elements but instead teaches that the entire set of N thumbnail images is displayed. The displayed number of thumbnail images, N , simply corresponds to the number of images stored in

the selected computer folder or file. Column 8, lines 55-58 ("Since N of thumbnail images are displayed in the image display region 111, it can be recognized readily what image data are stored in the selected file.").

It is clear that number of thumbnails displayed does *not* change as the size of the viewing area changes. The reference provides for scaling the thumbnail (element) sizes to maintain a predetermined or desired aspect ratio, and for calculating the vertical number N_y and horizontal number N_x of thumbnail images to be displayed, where the fixed number N is equal to $N_x \times N_y$. Abstract, column 6, lines 26-58. In sharp contrast to the present application, *the reference does not provide for varying the number of elements displayed in the viewing area*. After all, the number N must be fixed in order to perform the calculations provided in equations (1) and (2) in column 6, lines 34-38 of the cited reference.

The Examiner cites several sections of the Okudaira et al. reference in incorrectly rejecting independent claims 1, 10, 19, and 26. Applicants have carefully reviewed the sections of the reference cited by the Examiner and respectfully disagree with the Examiner's characterization of the reference. For example, the cited reference fails to disclose, "logical groupings of elements viewable in the image," as recited by independent claim 1. The approach described in the Okudaira et al. reference does not display "logical groupings," but instead displays a single set of thumbnail images with no determination of groupings. Column 7, lines 40-45, column 8, lines 1-3, 13-14. This lack of "logical groupings" in the cited reference is highlighted by the fact that the number (N) of thumbnail images displayed does not change as the size of the viewing area changes. There is no logical assessment of groupings or of the number of thumbnail images to display. Indeed, the number of thumbnail images displayed is simply the total number of images in the overall thumbnail set. Column 6, lines 27-40.

The reference also fails to disclose, “defining logical groupings of elements viewable in the display,” as recited by independent claim 10. Instead, the approach “detects” and does not calculate the number and set of thumbnail images to be viewable in the display region. Column 8, lines 55-58. The thumbnail images are not viewed or defined in discrete units but as a single overall set based on the number of accessed images. Again, the reference teaches only that a single set (and not logical groupings) of thumbnail images are viewable in the display. Column 7, lines 40-45, column 8, lines 1-3, 13-14. The absence of “logical groupings” in the Okudaira et al. approach is emphasized by the fact that the number of thumbnails in the set to be displayed in the viewable area does not change as the viewing/display area is re-sized. “Logical groupings” are not defined but instead the number of thumbnails to be displayed is “detected” based on the fixed number of images stored in the accessed computer folder. Column 8, lines 55-58. This is a much different approach than the capability envisaged by rejected claim 10.

The Okudaira et al. reference also fails to disclose, “wherein the image includes *representations of logical groupings of elements*,” as recited by claim 26, as presently amended. Instead, the approach disclosed in the reference does not distinguish between the individual thumbnails and does not consider nor determine “logical groupings” of the individual thumbnails. The disclosed approach simply detects the number of thumbnails to be displayed based on the existing and predetermined number of images stored in a computer folder. Column 8, lines 55-58.

The cited reference also fails to disclose, “acquiring data from components of the physical system via a data network,” and “generating an image of the physical system in a display area based upon the data,” as recited by claim 19. The Examiner acknowledged this deficiency in the discussion of rejected claims 7-9, stating, “Okudaira does *not* teach an image that represents a physical system and groupings representing components positioned within the physical system.” (Emphasis added.) The Okudaira et al. reference

does not mention a physical system nor components of a physical system, much less describe acquiring data from these components via a data network, or generating an image based on the data. Instead, the Okudaira et al. reference is directed toward the resizing of thumbnail images displayed on a computer monitor. Applicants request the Examiner clarify the inconsistency of the rejection of independent claim 19 with the Examiner's discussion of dependent claims 7-9, or indicate the allowability of these claims.

In view of the remarks set forth above, Applicants respectfully submit that the subject matter of independent claims 1, 10, 19, and 26, as well as the claims dependent thereon, is not anticipated by the Okudaira et al. reference. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejections and allowance of claims 1, 10, 19, and 26.

Rejections Under 35 U.S.C. § 103

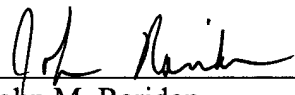
The Examiner rejected claims 7-9, 24, and 25 under 35 U.S.C. § 103(a) as being unpatentable over Okudaira et al. (US 6,400,375) in view of Tonelli et al. (US 6,229,540 B1). As discussed above, all of the independent claims are believed to be allowable over the Okudaira et al. reference. The Examiner relied upon the Tonelli et al. reference to disclose or teach "an image that represents a physical system and groupings representing components positioned within the physical system," and "descriptive indicia displayed for identifying the components." However, the Tonelli et al. reference does nothing to obviate the deficiencies of the Okudaira et al. discussed above. Accordingly, all of the cited dependent claims are believed to be patentable for the subject matter they separately recite as well as by virtue of their dependency on their respective allowable base claims 1 and 19. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejection and allowance of claims 7-9, 24, and 25.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: January 6, 2004



John M. Rariden
Reg. No. 54,388
FLETCHER YODER
P.O. Box 692289
Houston, TX 77269-2289
(281) 970-4545

CORRESPONDENCE ADDRESS
ALLEN-BRADLEY COMPANY, LLC
Patent Department/704P Floor 8 T-29
1201 South Second Street
Milwaukee, Wisconsin 53204
Attention: Mr. Alexander Gerasimow
Phone: (414) 382-2000